



Sheet 1 of 2

NOTES

- 1- TABLE of values for F are on this standard Drawing, Sheet 1.
- 2- CENTER OF MANHOLE SHAFT shall be located over center line of storm drain when diameter D₁ is 48" or less, in which case place E bars symmetrically around shaft at 45° with center line.
- 3- LENGTH L shall be 5'-6" unless shown otherwise on improvement plan. At option of Contractor L may be increased or location of manhole shifted to meet pipe ends.
- 4- DETAIL M: When depth of manhole from street grade to top of box is less than 2'-10½" for paved streets or 3'-6" for unpaved streets, construct monolithic shaft as per Detail M. The Contractor shall have the option of constructing shaft as per Detail M for any depth of manhole. When diameter D₁ is 48" or less, center of shaft shall be located as per Note 2.
- 5- THICKNESS OF DECK shall vary when necessary to provide level pipe seat, but shall not be less than tabular values for F shown on this plan.
- 6- REINFORCING STEEL shall be round, deformed bars, 1½" clear from face of concrete unless shown otherwise. Sizes and lengths are shown in table below.
- 7- CONCRETE shall be in accordance with the table of Concrete Specifications.
- 8- STEPS shall be ¾" round, galvanized steel and anchored not less than 6 inches in the walls of structure. Unless otherwise shown the spacing shall be 1'-5" on centers. The lowest step shall be not more than 2'-6" above the invert. (Alhambra Fdy. A-3320 or equal approved by city.)  
- 9- RINGS, REDUCER, AND PIPE for access shaft shall be seated in cement mortar and neatly pointed or wiped inside the shaft.
- 10- STATIONS of manholes shown on improvement plan apply at center of shaft. Elevations shown at stations refer to prolonged invert grade lines.
- 11- FLOOR of manhole shall be steel-troweled to springing line.
- 12- BODY of manhole shall be poured in one continuous operation, except that the Contractor shall have the option of placing at the springing line a construction joint with a longitudinal keyway.

| STEEL TABLE FOR MANHOLE - AX | | | | | | | |
|------------------------------|-----------|-------|--------|-----------|-------|--------|--|
| D bars | | | | E bars | | | |
| Diam. D ₂ | No. Req'd | Size | Length | No. Req'd | Size | Length | |
| 36" | 6 | No. 4 | 3'-10" | 4 | No. 4 | 2'-9" | |
| 39" | 6 | " | 4'-2" | 4 | " | 2'-11" | |
| 42" | 6 | No. 5 | 4'-6" | 4 | " | 3'-2" | |
| 45" | 6 | " | 4'-10" | 4 | " | 3'-5" | |
| 48" | 6 | " | 5'-1" | 4 | " | 3'-7" | |
| 51" | 6 | " | 5'-5" | 6 | " | 4'-9" | |
| 54" | 6 | " | 5'-9" | 6 | " | 5'-1" | |
| 57" | 6 | " | 6'-1" | 6 | " | 5'-6" | |
| 60" | 6 | " | 6'-4" | 6 | " | 5'-11" | |
| 63" | 6 | " | 6'-8" | 6 | " | 6'-3" | |
| 66" | 6 | " | 7'-0" | 8 | " | 6'-8" | |
| 69" | 6 | " | 7'-4" | 8 | " | 6'-8" | |
| 72" | 6 | " | 7'-7" | 8 | " | 6'-8" | |
| 78" | 6 | " | 8'-3" | 8 | " | 6'-8" | |
| 84" | 6 | " | 8'-10" | 10 | " | 6'-8" | |
| 90" | 6 | No. 6 | 9'-6" | 10 | " | 6'-8" | |
| 96" | 6 | " | 10'-1" | 10 | " | 6'-8" | |

| CONCRETE SPECIFICATIONS | |
|-------------------------|----------------|
| F | CONC. CLASS |
| 6½ - 7½ | 560 - C - 3250 |
| 7½ - 9½ | 560 - C - 3250 |
| 10 - 14 | 560 - B - 3250 |





D bars shall be spaced 3" o.c. E bars shall be spaced 4" o.c. Tie bars shall be No. 3 spaced 18" o.c. or closer.

When L greater than 5'-6" is specified on improvement plan, continue D bars at 6" o.c.

Lengths shown in table are for longest bars. Where shorter bars are required, bend or cut to meet field requirements.

- 13- COVER shall have letter D in center.

(Adapted from City of Los Angeles std. plan no. B-1700)

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| APPROVED  DATE <u>7/14/78</u> PUBLIC WORKS DIRECTOR - R.C.E. 18793 | | CITY OF RIVERSIDE PUBLIC WORKS DEPT. - ENGINEERING DIV. | |
|  | defined approval | DLR | 4-7-82 |
|  | Changed Riverside Fdy to Alhambra |  | 7.7.82 |
| MARK REVISIONS | | APPR. DATE | |
| MANHOLE AX | | STANDARD DRAWING NO. 430 Sheet 2 of 2 | |